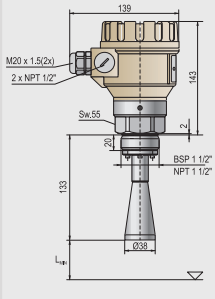
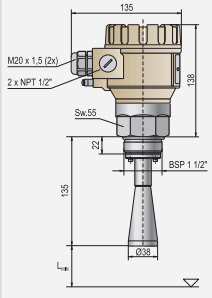
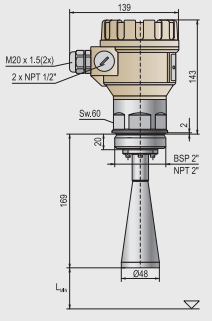
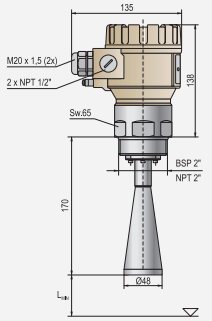
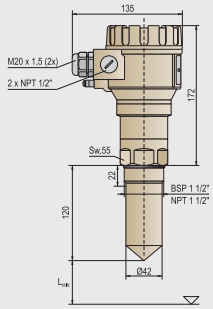
TECHNICAL DATA

Version		Plastic housing	Aluminium housing	High temperature version
Measured values		Level, Distance; Calculated values: Volume, Mass		
Frequency of the measuring signal		~24 GHz (K-band)		
Measuring range		0.2 m – 23 m (0.6 feet – 75 feet) - (see: special data of the antenna variations)		
Linearity error (as per EN 61298-2)		< 0.6 m (2 feet): ±15 mm (±0.6 inch); 0.6 - 1m (2 – 3.3 feet): ±8 mm (± 0.3 inch); 1 - 10m (3.3 - 33 feet): ±3 mm (± 0.12 inch); > 10 m (33 feet): ±0.04% of the measured distance		
Minimal beam angle		11° (see: special data of the antenna variations)		
Minimal ε_r of the medium		1.9 (depending on the measurement range; see: special data of the antenna variations)		
Resolution		1 mm (0.04 inch)		
Temperature error (as per EN 61298-3)		0.05% FSK / 10 °C (50 °F) (-20 °C ... +60 °C [-4 °F ... +140 °F])		
Power supply voltage		20 V ... 36 V DC		
Output	Digital communication	4-20 mA + HART		
	Display	SAP-300 graphical display unit		
Measuring frequency		10...60 sec as per the application settings		
Antenna diameter		38 mm (1 ½"), 48 mm (2"), 75 mm (3")		
Antenna material		Horn: Stainless Steel; enclosure: PP, PTFE		Horn: Stainless Steel; enclosure: PTFE
Medium temperature		-30 °C ... + 100 °C (-22 °F ... + 212 °F), (up to 120 °C (248 °F) for max. 2 min); with PP antenna enclosure: max.: 80 °C (+ 176 °F)		-30 °C ... + 180 °C (-22 °F ... + 356 °F)
Maximal medium pressure		25 bar (363 psig) at 120 °C (248 °F); with plastic antenna enclosure: 3 bar (44 psig) at 25 °C (77 °F)		
Ambient temperature		-20 °C ... +60 °C (-4 °F ... +140 °F)		
Process connection		Threaded, Flanged or Sanitary connections (as per order codes)		
Ingress protection		IP 67		
Electrical connection		2x M 20 x1.5 cable glands + internal thread for 2x ½" NPT cable protective pipe, cable outer diameter: Ø 7 ... Ø 13 mm (0.3 ... 0.5 inch), wire cross section: max.1.5 mm² (AWG 15)		
Housing material		Plastic (PBT)	Paint coated aluminium	
Sealing		Viton, EPDM		
Approvals		ATEX, IEC Ex, FM (approval is pending)		
Communication certifications		R&TTE, FCC (approval is pending)		
Mass		1 – 1.6 kg (2.2 – 3.5 lb)	2 – 2.6 kg (4.4 – 5.7 lb)	3 – 3.6 kg (6.6 – 7.9 lb)

SPECIAL DATA OF THE ANTENNA VARIATIONS

Type	WES/WGS-140/14N	WEM/WGM-140/14N	WES/WGS-150/15N	WEM/WGM-150/15N	WEP/WGP-140/14N
Name	DN40 (1 ½") stainless steel horn antenna		DN50 (2") stainless steel horn antenna		DN40 (1 ½") PP encapsulated antenna
Housing material	Paint coated aluminium	Plastic (PBT)	Paint coated aluminium	Plastic (PBT)	
Process connection	1½" BSP, 1½"NPT		2" BSP, 2" NPT		1½" BSP, 1½" NPT
Beam angle	19°		16°		–
Measurement range					
ε_r = 1.9 ... 4	0.2 m ... 4.5 m (0.6 ... 14.5 feet)		0.2 m ... 7 m (0.6 ... 23 feet)		–
ε_r = 4 ... 10	0.2 m ... 12 m (0.6 ... 40 feet)		0.2 m ... 18 m (0.6 ... 59 feet)		0.2 m ... 10 m (0.6 ... 33 feet)
ε_r > 10	0.2 m ... 18 m (0.6 ... 59 feet)		0.2 m ... 23 m (0.6 ... 75 feet)		0.2 m ... 16 m (0.6 ... 52.5 feet)
Dimensions (mm)